

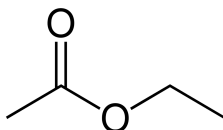
ORGANIC CHEMISTRY JUMBYL: Group A

Solve all 5 puzzles using your knowledge of IUPAC nomenclature. The circled letters form words. Unscramble the letters to find your final answer, write your answer in the box above, and draw its general structure.

1. What is the classical/historical name of acetic acid?

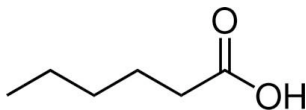
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2. The aroma of this molecule contributes towards the "fruitiness" of a wine. Identify this compound.



3. Examine your structure. This is also the molecular structure of rancid butter.

4. This organic molecule is a fatty acid that is naturally found in animal fats. Identify this compound.



5. It is glue and it is also known as methyl acetate. What is its IUPAC name?

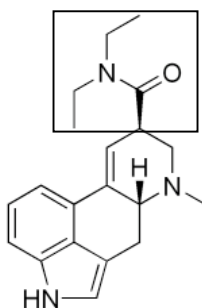
ORGANIC CHEMISTRY JUMBYL: Group B

Solve all 5 puzzles using your knowledge of IUPAC nomenclature. The circled letters form a word. Unscramble the letters to find your final answer, write your answer in the box above, and draw its general structure.

1. This organic compound and functional group is a derivative of ammonia.



2. The molecular structure of the psychedelic drug LSD is quite complex. Identify the IUPAC name of the group in the box. Assume the structure outside of the box is an R group.



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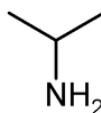
3. Examine your structure. This organic compound smells “fishy” at low concentrations and can be associated with bad breath. It is also a product of decomposition of plants and animals.

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4. Acetamide has been detected near the centre of the Milky Way galaxy, suggesting that organic molecules that led to life on Earth can form in space. What is its IUPAC name?

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5. Identify the name of this compound.

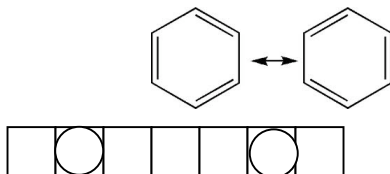


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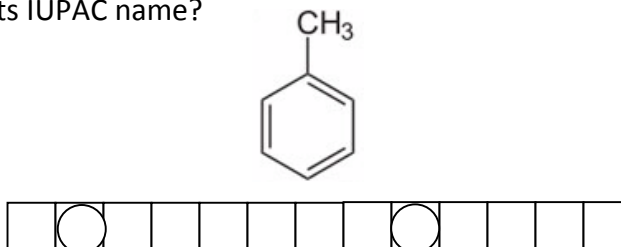
ORGANIC CHEMISTRY JUMBYL: Group C

Solve all 5 puzzles using your knowledge of IUPAC nomenclature. The circled letters form words. Unscramble the letters to find your final answer, write your answer in the box above, and draw a representation of the word.

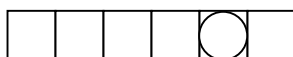
1. This organic compound exists in two forms, seen below. What is its IUPAC name?



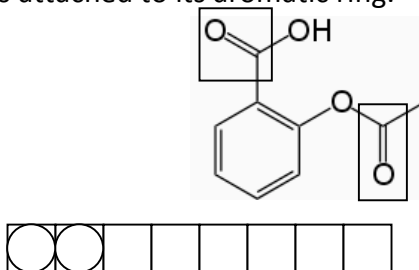
2. Toluene is used in the removal of cocaine from coca leaves in the production of Coca Cola syrup. What is its IUPAC name?



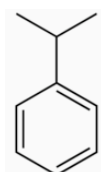
3. Examine your structure. This organic compound has been used in World War II as a means of execution.



4. Aspirin, or acetylsalicylic acid, is often used to relieve minor aches and pains. Identify the functional groups attached to its aromatic ring.



5. This structure's IUPAC name is (1-methylethyl)benzene. What is its other name?



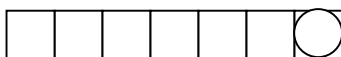
ORGANIC CHEMISTRY JUMBYL: Group D

Solve all 5 puzzles using your knowledge of IUPAC nomenclature. The circled letters form words. Unscramble the letters to find your final answer, write your answer in the box above, and draw its structure.

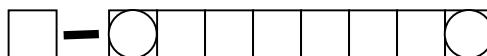
1. This is found in nail polish remover and was given the IUPAC name “propan-2-one”.



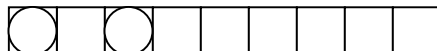
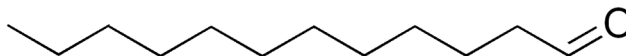
2. Devise the IUPAC name for the following molecular formula: $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$



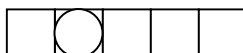
3. Examine your 3D structure. Determine the IUPAC name of the molecule.



4. Identify this compound.



5. Which synthetic fabric is made using cyclohexanone?



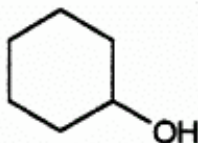
ORGANIC CHEMISTRY JUMBYL: Group E

Solve all 5 puzzles using your knowledge of IUPAC nomenclature. The circled letters form words. Unscramble the letters to find your final answer, write your answer in the box above, and draw its structure.

1. This class of compounds, which is defined as containing an oxygen atom linking two carbon atoms, shares its name with the imaginary substance once thought to exist in the space between atoms.

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2. Identify the following molecule.



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3. Examine your 3D structure. Determine the IUPAC name of the molecule.

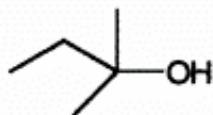
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4. Cyclic ethers are also known as what type of common name (most are useful as strong adhesives)?

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5. What subclass of alcohol is this?



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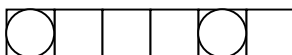
ORGANIC CHEMISTRY JUMBYL: Group F

Solve all 5 puzzles using your knowledge of IUPAC nomenclature. The circled letters form words. Unscramble the letters to find your final answer, write your answer in the box above, and specify its general formulas.

1. If a triple bond were introduced into the saturated compound found within margarine, what class of organic molecule would it fall into?



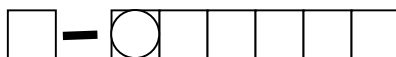
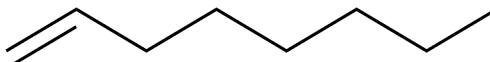
2. What is the smallest alkane capable of forming multiple isomers?



3. Examine your 3D structure. Determine the IUPAC name of the molecule.



4. Identify the following molecule.



5. What is the name of the chemical reaction necessary to synthesize an alkane from an alkene?



Organic Chemistry Jumbyl: Answers

Group A

1. VINEGAR
2. ETHYL ETHANOATE
3. **BUTANOIC ACID**
4. HEXANOIC ACID
5. METHYL ETHANOATE

FINAL ANSWER: **CARBOXYLIC ACID**

Group B

1. AMINE
2. DIETHYLAMIDE
3. TRIMETHYLAMINE
4. ETHANAMIDE
5. 2-**PROPANAMINE**

FINAL ANSWER: **PRIMARY AMINE**

Group C

1. BENZENE
2. METHYLBENZENE
3. PHENOL
4. **CARBONYL**
5. ISOPROPYLBENZENE

FINAL ANSWER: **RESONANCE**

Group D

1. **ACETONE**
2. BUTANAL
3. 2-**HEXANONE**
4. **DODECANAL**
5. NYLON

FINAL ANSWER: **ALDEHYDE**

Group E

1. ETHER
2. CYCLOHEXANOL
3. **DIETHYL ETHER**
4. EPOXIDE
5. TERTIARY

FINAL ANSWER: **HYDROXYL**

Group F

1. **ALKYNE**
2. **BUTANE**
3. **CYCLOHEPTYNE**
4. 1-**OCTENE**
5. **HYDR²OGENATION**

FINAL ANSWER: **HYDROCARBON**